

CLAIMS

What is claimed is:

1. An apparatus comprising:
a demand order module including a set of products to be shipped to a target location;
a demand projection module to determine a demand for the set of products for a plurality of subdivisions of a time period based on a weighting factor and historical demand data; and
a processing device to execute a demand projections module.
2. The apparatus of claim 1, further comprising:
a storage device to store the demand projection module.
3. The apparatus of claim 1, further comprising:
a data structure to store actual demand data for the time period.
4. A method comprising:
forecasting a total demand for a time period;
determining a weighting factor for a plurality of subdivisions of the time period; and
projecting future demand, during the time period, for a subdivision based on the weighting factor and historical demand data.
5. The method of claim 4, further comprising:
initializing the weighting factor to an equal value for each subdivision.
6. The method of claim 4, wherein calculating the weighting factor comprises:
applying a smoothing factor to the new demand data to produce a first result;

aggregating a new demand data for the time period;
applying an inverted smoothing factor to a previous weighting factor
to generate a second result; and
adding the first result and the second result.

7. The method of claim 4, wherein projecting future demand comprises:
multiplying total demand by the weighting factor and a ratio of actual demand and forecast demand.
8. The method of claim 4, further comprising:
adjusting a future demand forecast based on an out of stock calculation.
9. The method of claim 4, further comprising:
separating demand data between promotion demand and baseline demand.
10. The method of claim 6, wherein the smoothing factor biases the weighting factor in relation to historical demand data.
11. The method of claim 4, further comprising:
selecting one of a forecast demand and a projected demand based on a threshold value.
12. The method of claim 11, wherein the threshold value is a ratio of cumulative sales data for a subdivision of the time period and cumulative forecast data for the subdivision of the time period.
13. The method of claim 4, wherein a projected future demand is utilized when a minimum amount of historical demand data is received.
14. The method of claim 4, further comprising:
filtering historical demand data to remove statistical outliers.
15. An apparatus comprising:

means for calculating a weighting factor;
means for calculating a forecasted demand and a projected demand;
and
means for dynamically updating the projected demand based on additional demand data.

16. The apparatus of claim 15, further comprising:
means for adjusting the forecasted demand based on out of stock calculations.
17. The apparatus of claim 15, further comprising:
means for adjusting the weighting factor based on additional demand data.
18. The apparatus of claim 15, further comprising:
means for separating promotion data from baseline data.
19. The apparatus of claim 15, wherein the means for calculating the weighting factor utilizes a smoothing factor to bias the weighting factor in relation to a previous weighting factor.
20. The apparatus of claim 15, further comprising:
means for outputting the projected demand to a transportation route determination module.
21. The apparatus of claim 15, further comprising:
means for receiving demand data.
22. A machine readable medium containing therein a set of instructions which when executed cause a machine to perform a set of operations comprising:
forecasting a total demand for a time period;
determining a weighting factor for a plurality of subdivisions of the time period; and

projecting future demand, during the time period, for a subdivision based on the weighting factor and historical demand data.

23. The machine readable medium of claim 22, having further instructions stored therein, which when executed cause a machine to perform a set of operations, further comprising:

initializing the weighting factor to an equal value for each subdivision.

24. The machine readable medium of claim 22, wherein calculating the weighting factor comprises:

applying a smoothing factor to the new demand data to produce a first result;

aggregating a new demand data for the time period;

applying an inverted smoothing factor to a pervious weighting factor to generate a second result; and

adding the first result and the second result.

25. The machine readable medium of claim 22, wherein projecting future demand comprises:

multiplying total demand by the weighting factor and a ratio of actual demand and forecast demand.

26. The machine readable medium of claim 22, having further instructions stored therein, which when executed cause a machine to perform a set of operations, further comprising:

adjusting a future demand forecast based on an out of stock calculation.

27. The machine readable medium of claim 22, having further instructions stored therein, which when executed cause a machine to perform a set of operations, further comprising:

separating demand data between promotion demand and baseline demand.

28. The machine readable medium of claim 22, wherein the smoothing factor biases the weighting factor in relation to historical demand data.

29. The machine readable medium of claim 28, having further instructions stored therein, which when executed cause a machine to perform a set of operations further comprising:

selecting one of a forecast demand and a projected demand based on a threshold value.

30. The machine readable medium of claim 29, wherein the threshold value is a ratio of cumulative sales data for a subdivision of the time period and cumulative forecast data for the subdivision of the time period.

31. The machine readable medium of claim 28, wherein a projected demand is utilized when a minimum amount of historical demand data is received.

32. The machine readable medium of claim 22, having further instructions stored therein, which when executed cause a machine to perform a set of operations, further comprising:

filtering historical demand data to remove statistical outliers.